

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-6: (canceled).

Claim 7 (currently amended): A synchronous induction motor comprising:

a stator equipped with a stator winding;

a rotor which is secured to a rotating shaft and which rotates in the stator;

a secondary conductor provided around the rotor yoke constituting the rotor; and

a permanent magnet embedded in the rotor yoke,

wherein no portion of a magnetic field produced by the permanent magnet ~~does not pass~~
passes through the rotating shaft, and

wherein at least one void is located in the rotor yoke between the permanent magnet and the rotating shaft.

Claim 8 (currently amended): A synchronous induction motor comprising:

a stator equipped with a stator winding;

a rotor which is secured to a rotating shaft and which rotates in the stator;

a secondary conductor provided around the rotor yoke constituting the rotor; and
a permanent magnet embedded in the rotor yoke,
wherein a magnetic field produced by the permanent magnet entirely bypasses the
rotating shaft, and
wherein at least one void is located in the rotor yoke between the permanent magnet and
the rotating shaft.

Claim 9 (currently amended): A synchronous induction motor comprising:
a stator equipped with a stator winding;
a rotor which is secured to a rotating shaft and which rotates in the stator;
a secondary conductor provided around the rotor yoke constituting the rotor; and
a permanent magnet embedded in the rotor yoke,
wherein a magnetic field produced by the permanent magnet passes through only the rotor
yoke, excluding and no portion of the magnetic field passes through the rotating shaft, and
wherein at least one void is located in the rotor yoke between the permanent magnet and
the rotating shaft.

Claim 10 (previously presented): A synchronous induction motor comprising:
a stator equipped with a stator winding;
a rotor which is secured to a rotating shaft and which rotates in the stator;

a secondary conductor provided around the rotor yoke constituting the rotor; and
a permanent magnet embedded in the rotor yoke which does not have a length radially
disposed; and

secondary permanent magnets each having a linear shape and provided symmetrically
about a line that connects two magnetic poles, wherein the secondary permanent magnets have
lengths which are radially disposed, and wherein the secondary magnets are substantially
adjacent to the rotating shaft,

wherein a magnetic field produced by the permanent magnet does not pass through the
rotating shaft.

Claim 11 (previously presented): A synchronous induction motor comprising:

a stator equipped with a stator winding;
a rotor which is secured to a rotating shaft and which rotates in the stator;
a secondary conductor provided around the rotor yoke constituting the rotor; and
a permanent magnet embedded in the rotor yoke which does not have a length radially
disposed; and

secondary permanent magnets each having a linear shape and provided symmetrically
about a line that connects two magnetic poles, wherein the secondary permanent magnets have
lengths which are radially disposed, and wherein the secondary magnets are substantially
adjacent to the rotating shaft,

wherein a magnetic field produced by the permanent magnet bypasses the rotating shaft.

Claim 12 (previously presented): A synchronous induction motor comprising:

a stator equipped with a stator winding;

a rotor which is secured to a rotating shaft and which rotates in the stator;

a secondary conductor provided around the rotor yoke constituting the rotor; and

a permanent magnet embedded in the rotor yoke which does not have a length radially

disposed; and

secondary permanent magnets each having a linear shape provided symmetrically about a line that connects two magnetic poles, wherein the secondary permanent magnets have lengths which are radially disposed, and wherein the secondary magnets are substantially adjacent to the rotating shaft,

wherein a magnetic field produced by the permanent magnet passes through only the rotor yoke, excluding the rotating shaft.

Claim 13 (previously presented): The synchronous induction motor as recited in claim 8, wherein said at least one void has a shape of an arc of a circle.

Claim 14 (previously presented): The synchronous induction motor as recited in claim 9, wherein said at least one void has a shape of an arc of a circle.

Claim 15 (previously presented): The synchronous induction motor as recited in claim 7, wherein said at least one void has a shape of an arc of a circle.

Claim 16 (currently amended): A synchronous induction motor comprising:

- a stator equipped with a stator winding;
- a rotor which is secured to a rotating shaft and which rotates in the stator;
- a secondary conductor provided around the rotor yoke constituting the rotor;
- a permanent magnet embedded in the rotor yoke which does not have a length radially disposed; and

secondary permanent magnets each having an arcuate shape curving around the rotating shaft and provided symmetrically about a line that connects two magnetic poles,

~~wherein the secondary permanent magnets have lengths which are radially disposed;~~

wherein the secondary magnets are substantially adjacent to the rotating shaft, and

wherein a magnetic field produced by the permanent magnet does not pass through the rotating shaft.

Claim 17 (currently amended): A synchronous induction motor comprising:

- a stator equipped with a stator winding;
- a rotor which is secured to a rotating shaft and which rotates in the stator;
- a secondary conductor provided around the rotor yoke constituting the rotor;

a permanent magnet embedded in the rotor yoke which does not have a length radially disposed; and

secondary permanent magnets each having an arcuate shape curving around the rotating shaft and provided symmetrically about a line that connects two magnetic poles,

~~wherein the secondary permanent magnets have lengths which are radially disposed;~~

wherein the secondary magnets are substantially adjacent to the rotating shaft, and

wherein a magnetic field produced by the permanent magnet bypasses the rotating shaft.

Claim 18 (currently amended): A synchronous induction motor comprising:

a stator equipped with a stator winding;

a rotor which is secured to a rotating shaft and which rotates in the stator;

a secondary conductor provided around the rotor yoke constituting the rotor;

a permanent magnet embedded in the rotor yoke which does not have a length radially disposed; and

secondary permanent magnets each having an arcuate shape curving around the rotating shaft provided symmetrically about a line that connects two magnetic poles,

~~wherein the secondary permanent magnets have lengths which are radially disposed;~~

wherein the secondary magnets are substantially adjacent to the rotating shaft, and

wherein a magnetic field produced by the permanent magnet passes through only the rotor yoke, excluding the rotating shaft.